

## A new species of *Clavisyllis* Knox, 1957 (Polychaeta: Syllidae): a genus with the unusual distribution of New Zealand and the Great Barrier Reef, northern Queensland, Australia

CHARLOTTE WATSON

<sup>1</sup>Museum and Art Gallery Northern Territory, GPO Box 4646, Darwin, NT 0801, AUSTRALIA  
charlotte.watson@nt.gov.au

### ABSTRACT

An intriguing small syllid polychaete belonging to the genus *Clavisyllis* Knox, 1957 is described from coral reefs of northern Queensland, Australia. *Clavisyllis youngei* sp. nov. possesses large inflated lobe-like dorsal cirri, coloured yellow-orange with white tips, that alternate in segmental insertion positions and form longitudinal rows down the dorsum; similar shaped dorsal tentacular and antennal cirri, large nuchal epaulettes, elongate palps fused only at their base, and a pharynx with a trepan. The new taxon is compared with the only other species in the genus *Clavisyllis alternata* Knox, 1957, and possible scenarios for the unusual geographic distribution of tropical northern Australia and temperate New Zealand are discussed. *Clavisyllis* is also compared with *Eurysyllis*, another syllid genus possessing rows of dorsal lobes, specifically *Eurysyllis japonica* Imajima, 2003, a new record for the Great Barrier Reef, Australia.

KEYWORDS: Annelida, Polychaeta, Syllidae, *Clavisyllis youngei* sp. nov., *Clavisyllis alternata*, *Eurysyllis japonica*, taxonomy, systematics, coral reefs, biogeography.

### INTRODUCTION

The family Syllidae, known to be especially abundant in shallow waters, is one of the most diverse polychaete families comprising 70 genera (Aguado and San Martín 2009). There have been a number of recent papers revising the Australian syllid fauna by subfamily: Exogoninae (San Martín 2005), Eusyllinae (San Martín and Hutchings 2006) and Syllinae (San Martín *et al.* 2008a,b) which have substantially increased our knowledge of the syllid fauna with the addition of a number of new genera and species plus a better understanding of the phylogeny of the group (Aguado and San Martín 2009).

The monotypic syllid genus *Clavisyllis* was originally described from an individual that was living on hydroids of the genus *Sertularia* by Knox (1957) from Banks Peninsula, South Island, New Zealand. The holotype was subsequently lost, although Aguado and San Martín (2008) redescribed *Clavisyllis alternata* from another single specimen taken on a pier at the port of New Plymouth, North Island, New Zealand. All these previous authors have remarked on the number of morphological features that did not relate to any existing syllid generic or subfamilial designation.

Two syllid individuals, recently collected from Lizard Island, Great Barrier Reef, northern Queensland, with large ovoid lobes superficially appearing to be in two longitudinal rows down the dorsum, were originally compared with those seen in *Eurysyllis*. Aguado (pers. comm., September 2009) alerted the author to the existence of the genus *Clavisyllis* and

after re-examination of the literature and the Great Barrier Reef (GBR) specimens, these ovoid lobes were found to be modified dorsal cirri that subtly alternate in segmental position along the body, a primary feature of *Clavisyllis*. The GBR material possesses different morphology of the ventral tentacular cirri, nuchal epaulettes, pharynx and numbers of neurosetae in comparison to *Clavisyllis alternata* and is described herein as a new species.

Material from Lizard Island was collected under the auspices of the CReefs project organised by the Australian Institute of Marine Science (AIMS). Type and non-type material is deposited in the Museum and Art Gallery Northern Territory, Darwin (NTM) and the Queensland Museum, Brisbane (QM).

### SYSTEMATICS

#### Family Syllidae Grube, 1850

#### Subfamily uncertain

#### *Clavisyllis* Knox, 1957

Gender feminine. Type species, by monotypy, *Clavisyllis alternata* Knox, 1957. Recent, New Zealand.

**Diagnosis.** Subcylindrical broad body with crowded large ovoid dorsal cirri, subtly alternating in lateral and dorsal segmental position giving the appearance of 4 longitudinal rows of lobes down body; integument thin. Prostomium with 4 eyes, 3 antennae and 2 palps fused at base. Nuchal organs form 2 straight epaulettes with single digitiform nuchal cirrus (*Clavisyllis alternata*) or curved

epaulettes with knob-like tips (*Clavisyllis yongei* sp. nov.) along posterior edge of prostomium.

Peristomium with 2 pairs of tentacular cirri. Antennae, dorsal tentacular cirri and dorsal cirri large, ovoid, inflated, with cirrophores; ventral cirri triangular. Parapodia uniramous with projecting upper lobe, 1–2 aciculae and compound heterogomph falcigers with blades having distinct bidentate tips and long spines forming aristae distally. Pygidium with 2 short ovoid cirri. Pharynx with single tooth or trepan of 12–13 teeth.

**Remarks.** Neither Knox (1957), nor Aguado and San Martín (2008), nor the present author can assign this genus to any subfamily of the Syllidae.

The presence/absence of ventral cirri, the degree of articulation of the antennae and cirri, the degree of fusion of palps, the shape of nuchal organs, and most importantly the method of reproduction, are among the major traditional criteria used to define position of syllid genera within a subfamily (Garwood 1991; Glasby 2000; Aguado and San Martín 2009). *Clavisyllis* has, for example, unarticulated cirri, partially fused palps, nuchal epaulettes, two pairs of tentacular cirri and a pharynx with either a single tooth or trepan, characters that overlap across genera in a number of syllid subfamilies.

Certain *Clavisyllis* features are seen in some genera of the Autolytinae such as the large nuchal epaulettes present in *Proceraea aurantiaca* and the large lobe-like antennae in *Paraprocerastea draculai* (San Martín 2003). However, the Autolytinae possess a coiled pharynx and no ventral cirri; *Clavisyllis* has a straight pharynx and ventral cirri.

The genus has basally fused palps and unarticulated cirri that are indicated for the Eusyllinae. Aguado and San Martín (2008) consider that *Clavisyllis* also has some common features with *Amblyosyllis* (currently located in the Eusyllinae) such as the presence of extended parapodial lobes and nuchal epaulettes.

*Clavisyllis* shares with *Eurysyllis* (currently located in the Syllinae due to its schizogamic reproduction) large lobe-like antennae, tentacular cirri and unarticulated dorsal cirri. The smooth inflated cirri seen in both genera, plus the additional rows of dorsal lobes present in *Eurysyllis*, may represent characters modified from a more typical form of syllid ancestor for some specific camouflage or mimicking advantage. These modifications make placement within a subfamily difficult and in the case of *Clavisyllis* impossible until more material is collected and reproduction method observed.

*Clavisyllis yongei* sp. nov.

(Figs 1–3)

**Material examined.** HOLOTYPE – Australia, Queensland, Great Barrier Reef, Yonge Reef, 14°36'S, 145°37'E, Stn. CWL1040, coarse coral rubble, 30 m, coll. S. Smith and J. Caley, 21 February 2009, NTM W.22995; PARATYPE – same collection details as holotype, 1, NTM W.22994.

**Description.** Holotype entire body 5.1 mm long, 1.5 mm wide, 51 segments. Paratype, body 5.0 mm long, 1.72 mm wide, 49 segments.

Description based on holotype except where indicated otherwise. Living colour orange-yellow, body broad, elongated, dorsally arched, largely covered in distinctive inflated yellow-orange ovoid lobes with peaked distal white tips (Fig. 1); small uniramous parapodia tucked under, not visible dorsally, ventrum flat.

Prostomium about twice as wide as long with 2 pairs of large, lensed, red eyes; large lobe-like median antenna arising from posterior half of prostomium; 2 smaller lateral antennae inserting near anterior edge of prostomium; 2 palps with wide base and subulate tips, fused only at basal quarter of length, inserting ventrally. Nuchal organs form 2 prominent curved epaulettes along posterior edge of prostomium (seen clearly with white margin under stereo microscope) with elevated knobs at ends (Fig. 2A,B). Pharynx straight, similar length or longer than proventricle, with trepan of 12–13 teeth including 1 slightly longer mid-dorsal tooth at ventral anterior pharyngeal border; proventricle cylindrical to ovoid, from setiger 8–9 with about 40 rows of muscle cells and distinct midline (paratype, Fig. 3A,B).

Peristomium very reduced, not visible dorsally, asetose, with 2 pairs of tentacular cirri; dorsal pair ovoid, ventral pair cylindrical inserting next to palps (Fig. 2B). Chaetiger 1 and following chaetigers with uniramous parapodia with large ovoid dorsal cirri alternating in their point of insertion; dorsal cirri more dorsally inserted approximately same size as those inserted more laterally. Parapodia with distinct projecting upper lobe (almost cirrus-like) and larger triangular/ovoid-shaped ventral cirri, both extending beyond tips of parapodium; 2 aciculae (superior excavate on lower edge, inferior entire); compound chaetae heterogomph falcigers with mostly smooth shafts (see some with minute serration) and medium-short, smooth, falcate blades with distinct bidentate tips and long pointed single or multiple spines forming aristae distally (Figs 2C, 3D–H). Numbers of chaetae similar down body, 6–8. Dorsal chaetae absent. Single simple chaetae only present in posteriormost 2–3 segments, very slender with slight curve. Pygidium with 2 short ovoid cirri (Fig. 3C).

**Remarks.** Live *Clavisyllis yongei* resembled a small nudibranch when first seen in the field (Fig. 1) with the upright dorsal cirri lobes very similar in appearance to the erect cerata held over the dorsum in a number of families of aeolid nudibranchs. Among the often very colourful aeolid nudibranchs, for example, basally swollen cerata with elongate tips are arranged in simple rows down the back and in many species have white distal tips which are usually where the cnidosacs for nematocyst storage are situated. As well as the bright colouring advertising its possible toxicity to predators, the aeolid body form often mimics the structure and colour of its food source, e.g. soft corals or hydroids (Debelius and Kuiter 2007).





Fig. 1. *Clavisyllis yongei* sp. nov. Live, paratype (NTM W.22994), lateral view, 5 mm body length. Photo. Art Anchor.

Among the polychaetes, the Syllidae are relatively commonly associated with other marine invertebrates as commensals on the surface of the host and may mimic its bright colour and structure, e.g. *Alcyonosyllis phili* Glasby and Watson, 2001 associated with a nephtheid soft coral from Darwin Harbour and *Alcyonosyllis glasbyi* San Martín and Nishi, 2003 associated with a gorgonian from Japan. It is possible the body form and colouration of *Clavisyllis yongei* may confer some advantage in mimicking either a nudibranch species or a possible invertebrate host. The two *C. yongei* specimens collected came from coral rubble washings with some encrusting algae, but in the absence of specific nudibranch comparative material or more detailed microhabitat information this must remain speculation.

The single existing specimen of *Clavisyllis alternata*, prepared for SEM, was not examined for this study as both Knox (1957) and Aguado and San Martín (2008) have provided well documented and illustrated papers. It is clear to this author that *C. yongei* from the GBR, northeastern Australia, and *C. alternata* from New Zealand are taxa belonging to the same genus. Both species have similar features of the anterior end including possession of large epaulettes, alternating ovoid dorsal cirri lobes down the dorsum and unusual falcigerous blade details. The orange-yellow colouration of the two species in life is also the same (see *C. alternata*, Knox 1957: 493).

The major difference between the two species is the shape of the nuchal organs, which form two curved connected epaulettes in *Clavisyllis yongei* and two straight unconnected epaulettes in *C. alternata*. The latter also has a single digitiform nuchal cirrus, unique among the entire Syllidae, which is lacking in *C. yongei*, although the ends of its epaulettes are elevated slightly into raised knobs. While the shape of the pharynx and proventricle are very similar

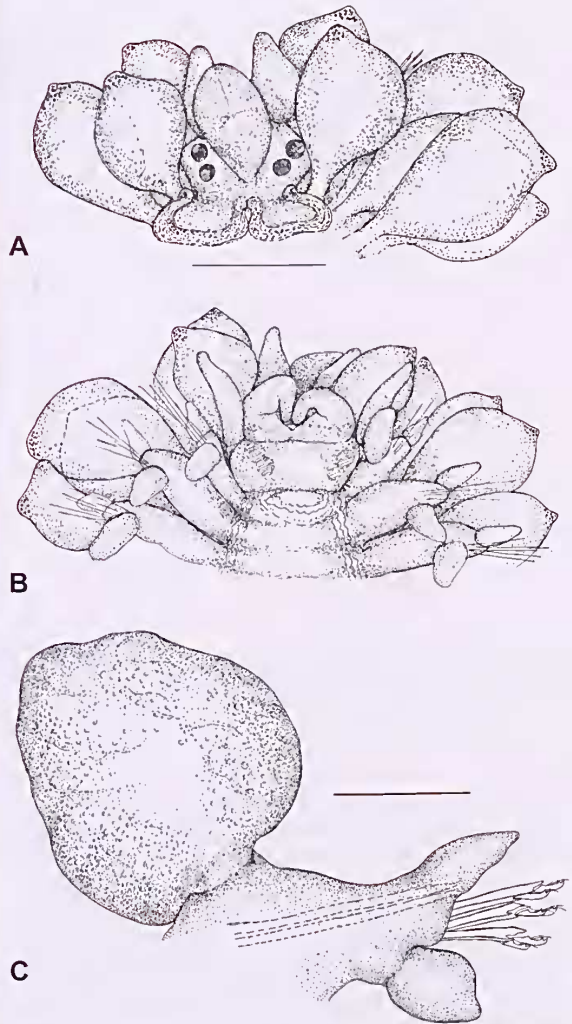


Fig. 2. *Clavisyllis yongei* sp. nov. Holotype (NTM W.22995), A, Anterior end, dorsal view, scale bar 0.2 mm; B, ventral view, same scale as Fig. 2A; C, mid body parapodium, scale bar 0.1 mm.

between the two species, *C. yongei* possesses a trepan of many teeth and *C. alternata* possesses a single tooth.

*Clavisyllis yongei* also has a distinctly different shaped ventral tentacular cirri pair, a larger projecting upper parapodial lobe and smaller number of falcigers (6–8 versus 30). The GBR specimens are shorter (5 mm versus 13–29 mm in length in the NZ specimens). There is a different proportion of the supra-acicular parapodial lobes to the parapodium between the species and the GBR specimens and also a glandular (versus reticulatc) pattern of the dorsal cirri (Fig. 2C this paper, as compared with Aguado and San Martín 2008: 45, fig. 6e).

The characters separating the two species are of interest, being a mixture of what is commonly thought of as characters at the generic level e.g. nuchal epaulette shape, pharynx details, tentacular cirri shape, as well as the

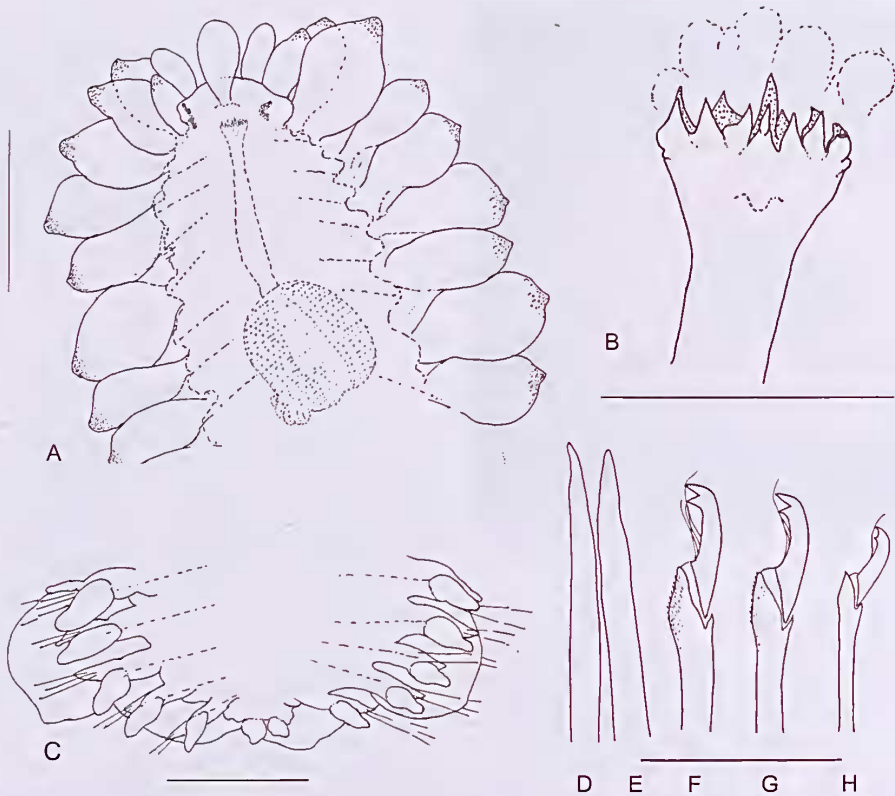


Fig. 3. *Clavisyllis yongei* sp. nov. Paratype (NTM W022994), A, anterior end, dorsal view, scale bar 0.2 mm; B, detail of trepan, scale bar 0.1 mm. Note: dorsal lobes flattened laterally due to coverslip. Holotype, C, posterior end, ventral view, scale bar 0.2 mm, D, E, aciculae, F, G, midbody falcigers, H, posterior falciger, scale bar 0.04 mm.

more conventional species level characters e.g. numbers of chaetae, parapodial lobe shape, epidermal texture.

This discrepancy in shared *Clavisyllis* characters may well be evidence of a former ancestral population being separated for a long time. In a checklist of New Zealand Annelida (Glasby *et al.*, 2009), *Clavisyllis* is cited as an endemic genus, a situation now changed with the discovery of this new species from the Great Barrier Reef, north-eastern Australia.

Glasby and Alvarez (1999) found that the polychaete fauna of New Zealand was overwhelmingly of southern or Gondwanan origin with over half of all polychaetes endemic to New Zealand or shared with southern Australia. The same conclusions have been voiced by R. Willan for the Mollusca (pers. comm.) and T. O'Hara for the ophiuroids (pers. comm.).

Glasby and Alvarez's (1999) suggestion that the Greater New Zealand region is 'monophyletic' with respect to polychaetes (i.e. comprising a genuine biogeographical entity), implies that the fauna evolved after the separation of New Zealand from Gondwana. Taxa that evolved before the separation of New Zealand from Gondwana would potentially show present day distributions that included other Gondwanan lands such as Australia, New Caledonia

also formed part of the edge of Gondwana with New Zealand for part of the Cretaceous (Heads 2009).

Heads (2009) also emphasises that parts of New Zealand, New Caledonia, New Guinea and the Bismarcks/Solomons are derived from ancient Central Pacific rifted terranes that were never part of Gondwana.

*Clavisyllis*, an enigmatic and rare genus, is presently known only from New Zealand and north-eastern Australia. It is possibly a very old taxon allied either to the edge of Gondwana, pre-dating the Australia/New Zealand split, or from rifted oceanic terranes derived from island arcs of the ancient Central Pacific.

There is also the consideration that the existence of a relatively shallow water connection between eastern Australia and New Zealand enabled dispersal of *Clavisyllis* at some time in the more recent past along shallow water bridges and interconnecting islands. Potential connection is offered, for example, by the Lord Howe Island Rise, a continental fragment extending northwards from the Challenger Plateau off the west coast of New Zealand, which remained very close to Australia until the Middle Tertiary (Walley 1992). While nothing is known of the reproductive strategies or larval stages of *Clavisyllis* it seems an unlikely proposition that dispersal could be taking place



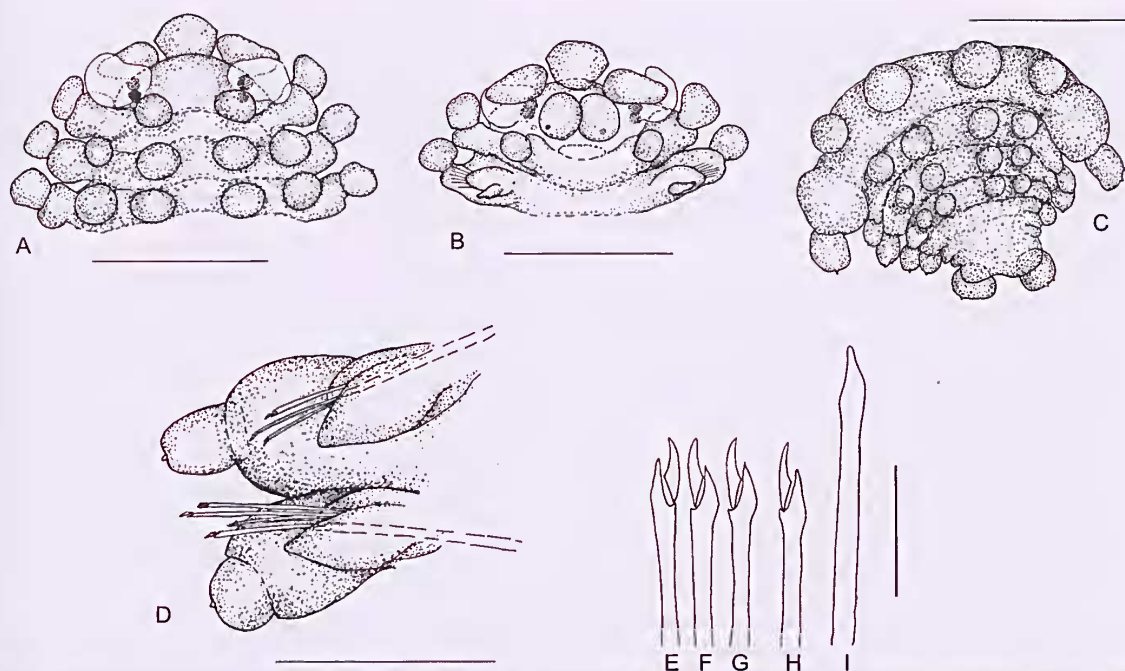


Fig. 4. *Euryssyllis japonica* (NTM W.22996), A, Anterior end, dorsal view, scale bar 0.2 mm; B, ventral view, scale bar 0.2 mm; C, posterior end, dorsal view, scale bar 0.2 mm; D, mid body parapodium, scale bar 0.1 mm; E–G, midbody falcigers; H, posterior falciger; I, acicula, scale bar 0.01 mm.

over the present deep water barriers between Australia and New Zealand.

**Habitat and Distribution.** Presently only found from coral rubble at 30 m depth, Great Barrier Reef, northern Queensland.

**Etymology** The species is named *yongei* after Charles Maurice Yonge, eminent marine biologist and leader of the Great Barrier Reef Expedition of 1928–29. His name was given to Yonge Reef on the Outer Great Barrier Reef from where *Clavisyllis yongei* was discovered.

#### Subfamily Syllinae

##### *Euryssyllis* Ehlers, 1864

Gender feminine. Type species, by monotypy, *Euryssyllis tuberculata* Ehlers, 1864. Recent, Mediterranean Sea.

##### *Euryssyllis japonica* Imajima, 2003

(Fig. 4)

**Material Examined.** Australia, north Queensland, Great Barrier Reef, Day Reef, 14°28'S, 145°32'E, Stn. CWLI038A, coarse coral rubble, 19 m, 19 February 2009, coll. N. Bruce, 1, NTM W.22996; Linnet Reef, 14°46'S, 145°20'E, Stn. CWLI027, coarse coral rubble, 2–12 m, 23 February, coll. P. Bock, 1, QMG231603; Yonge Reef, 14°36'S, 145°37'E, Stn. CW LI040, coarse coral rubble, 30 m, 21 February 2009, coll. K. Mills, 1, NTM W.22997.

**Description.** Based on largest specimen from Day Reef, 5.0 mm long, 0.8 mm wide, 89 segments; body entire. Colour in life whitish grey, 'crusty' looking. Body elongate, ribbon-like, slightly convex anteriorly, with 4 flattened

rounded tubercles per segment (2 on peristomium), forming 4 longitudinal rows down body (Fig. 4A,C).

Prostomium about twice as wide as long, with 2 pairs of red eyes dorsally and 1 tiny pair visible ventrally near palps. Three spherical antennae, 2 lateral, 1 median, on anterior edge of prostomium plus 2 dorsolateral lobes arising from lateral edge of prostomium over anterior pair of eyes. Two spherical palps ventrally positioned, fused along their length (Fig. 4A–C). Nuchal organs not observed. Pharynx slender, long, no tooth observed; barrel-shaped proventricle through segments 19–22, with about 14 muscle cell rows.

Peristomium with 2 dorsal tubercles and 2 pairs of tentacular cirri; dorsal pair same shape as subsequent dorsal cirri, ventral pair short and rounded only visible ventrally. Segments numerous and short; dorsal cirrophores well developed with ovate cirrostyles with 1–3 minute papillae distally; ventral cirri triangular (Fig. 4D). Compound chaetac of mid-body segments heterogomph falcigers, shafts smooth, articles short, smooth, very small; single acicula with projecting tip (Fig. 4E–I). Numbers of falcigers similar down body, numbering 6–8, with single simple chaeta present in posterior segments. Pygidium with 2 ovate anal cirri, similar to dorsal cirri (Fig. 4C).

**Remarks.** *Clavisyllis* bears a superficial resemblance to *Euryssyllis*, particularly in the apparent possession of the four longitudinal rows of rounded lobes down the dorsum, a character only truly occurring in *Euryssyllis*. Both genera also fall into a similar size range and interestingly both were present in the same Great Barrier Reef habitat.

There are four *Eurysyllis* species reported – *E. tuberculata* Ehlers, 1864, *E. pacifica* (Hartman, 1954), *E. spicuum* Kudenov and Harris, 1995, and *E. japonica* Imajima, 2003. Specimens examined from three GBR reefs, northern Queensland, possess tiny papilla/e on the cirrostyles, smooth short falcigers, and a slender acicula with a pointed end (Fig. 4), features observed in, and unique to, specimens of *Eurysyllis japonica*. This is therefore the first record of this species occurring within Australia.

San Martín *et al.* (2008a) figured and described *Eurysyllis tuberculata* as occurring widely in Australia, from mainly southern temperate waters and northwestern Western Australia. *Eurysyllis tuberculata* differs from *E. japonica* in having non-papillate cirri, falcigers with spinose shafts and articles and a distally expanded tip of the aciculae.

*Eurysyllis* is placed in the Syllinae, a subfamily characterised by articulated appendages, free or partially fused palps and undergoing schizogamic scissiparous reproduction. From my observations, *Eurysyllis japonica* has smooth antennae, tentacular cirri and dorsal cirri, fused palps and non-alternating anterior end dorsal cirri (but see Character matrix, Table 3, Aguado and San Martín 2009). The dorso-lateral lobes of the prostomium of *Eurysyllis* appear to be a unique character of the genus, but it is not included in the Character states, Table 2, Aguado and San Martín 2009.

**Habitat and Distribution.** Recorded from coral rubble at 2–30 m depth, Great Barrier Reef, north Queensland.

#### ACKNOWLEDGEMENTS

Material from Lizard Island was collected under the auspices of the CReefs project organised by the Australian Institute of Marine Science (AIMS). This project is sponsored by BHP Billiton in partnership with the Great Barrier Reef Foundation, AIMS and the Alfred P. Sloan Foundation. CReefs is also a field program of the Census of Marine Life. Julian Calcey and Shawn Smith (AIMS) must be acknowledged for their excellent organisation and field support as must Anne Hoggett and Lyle Vail, co-directors of the Lizard Island Research Station. I also thank Magda Blazewicz and Niel Bruce for sharing coral rubble specimens with me and in particular Art Anker for his patient macro photography of interesting polychaetes that came his way, including the syllid *Clavissyllis*. I am grateful to Chris Glasby for helpful discussions and to all the reviewers of the manuscript, especially Maite Aguado for her informative and generous critique.

#### REFERENCES

- Aguado, M.T. and San Martín, G. 2008. Redescription of some enigmatic genera of Syllidae (Phyllodoidea: Polychaeta). *Journal of Marine Biological Association of the United Kingdom* 88(1): 35–56.
- Aguado, M.T. and San Martín, G. 2009. Phylogeny of Syllidae (Polychaeta) based on morphological data. *Zoological Scripta* 2009 38: 379–902.
- Debelius, H. and Kuitert, R.H. 2007. *Nudibranchs of the World*. IKAN-Unterwasserarchiv: Frankfurt, Germany.
- Ehlers, E. 1864. *Die Borstenwürmer nach systematischen und anatomischen Untersuchungen dargestellt*. Wilhelm Engelmann: Leipzig.
- Garwood, P. 1991. Reproduction and classification of the family Syllidae. *Ophelia Supplement* 5: 81–87.
- Glasby, C.J. 2000. Family Syllidae. Pp. 161–167 In: Beesley P.L., Ross, G.J.B. and Glasby, C.J. (eds) *Polychaetes and Allies: The Southern Synthesis. Fauna of Australia, vol 4A Polychaeta, Myzostomida, Pogonophora, Echiura, Sipuncula*. CSIRO Publishing: Melbourne.
- Glasby, C. J. and Alvarez, B. 1999. Distribution patterns and biogeographic analysis of austral Polychaeta (Annelida). *Journal of Biogeography* 26: 507–533.
- Glasby, C. J. and Watson, C. 2001. A new genus and species of Syllidae (Annelida: Polychaeta) commensal with octocorals. *The Beagle, Records of the Museums and Art Galleries of the Northern Territory* 17: 43–51.
- Glasby, C.J., Read, G.B., Lee, K.E., Blakemore, R.J., Fraser, P.M., Pinder, A.M., Erséus C., Moser, W.E., Burreson, E.M., Govedich, F.R., Davies, R.W. and Dawson, E.W. 2009. Phylum Annelida, bristleworms, earthworms, leeches. Pp. 352–358 In: D.P. Gordon (ed.) *New Zealand Inventory of Biodiversity, Vol. 1: Kingdom Animalia*. Canterbury University Press: Canterbury.
- Hartman, O. 1954. Marine annelids of the Marshall Islands. *Geological Survey Professional Paper Number 260-Q*: 619–644.
- Heads, M. 2009. Globally basal centres of endemism: the Tasman-Coral Sea region (south-west Pacific), Latin America and Madagascar/South Africa. *Biological Journal of the Linnean Society* 96: 222–245.
- Imajima, M. 2003. Polychaetous annelids from Sagami Bay and Sagami Sea collected by the Emperor Showa of Japan and deposited at the Showa Memorial Institute, National Science Museum, Tokyo (11). *National Science Museum Monograph* 23: 1–221.
- Knox, G.A. 1957. *Clavissyllis alternata*, gen. et sp. nov., a new polychaete from New Zealand. *Annals and Magazine of Natural History ser. 12* vol 10: 493–496.
- Kudenov, J.D. and Harris, L.H. 1995. Family Syllidae. Taxonomic atlas of the benthic fauna of the Santa Maria Basin and Western Santa Barbara Channel. *Santa Barbara Museum of Natural History* 5(2): 1–89.
- San Martín, G. 2003. *Fauna Iberica, Annelida Polychaeta, 11, Syllidae*. Museo Nacional de Ciencias Naturales Consejo Superior de Investigaciones Científicas: Madrid.
- San Martín, G. 2005. Exogoninae (Polychaeta: Syllidae) from Australia with the description of a new genus and twenty two new species. *Records of the Australian Museum* 57(1): 39–152.
- San Martín, G. and Hutchings, P. 2006. Eusyllinae (Polychaeta: Syllidae) from Australia with the description of a new genus and fifteen new species. *Records of the Australian Museum* 58: 257–370.

- San Martín, G., Hutchings, P. and Aguado, M.T. 2008a. Syllinae (Polychaeta: Syllidae) from Australia. Part 1. Genera *Branchiosyllis*, *Eurysyllis*, *Karroonsyllis*, *Parasphaerosyllis*, *Plakosyllis*, *Rhopalosyllis*, *Tetrapalpia* n. gen., and *Xenosyllis*. *Records of the Australian Museum* 60: 119–160.
- San Martín, G., Hutchings, P. and Aguado, M.T. 2008b. Syllinae (Polychaeta: Syllidae) from Australia. Part 2. Genera *Inermosyllis*, *Megasyllis* n. gen., and *Trypanosyllis*. *Zootaxa* 1840: 1–53.
- San Martín, G. and Nishi, E. 2003. A new species of *Alcyonosyllis* Glasby and Watson, 2001 (Polychaeta: Syllidae: Syllinae) from Shimoda, Japan, commensal with the gorgonian *Melithaea flabellifera*. *Zoological Science* 20: 371–375.
- Walley, A.M. 1992. Cretaceous-Cainozoic palaeogeography of the New Zealand-New Caledonia region. Bureau of Mineral Resources and Petroleum Division of the Australian Mineral Industries Research Association Phanerozoic History of Australia Project: Canberra.

Accepted 14 October 2009

#### POSTSCRIPT

A further single specimen of *Clavisyllis yongei* was collected on 14 November 2009 at 30 m, from Sykes Reef, Capricorn Group, southern Great Barrier Reef, central Queensland (23°26'S, 152°02'E), during the recent CReefs sampling expedition to Heron Island.